

The Role and Ambitions of the International Association of Currency Affairs

Currency News™ spoke with Richard Wall during the High Security Print Latin America event in Costa Rica about his election as the Chairman of the IACA Board of Directors this year. We wanted to understand his thoughts on its role and his ambition for the organisation, which was established in 2004 and has 'linking central banks and industry to give back to the cash community' as its mission.



Richard Wall.

Richard Wall was Managing Director at the Bank of Canada until he retired in August 2018. He ran the Currency Department, having worked for 28 years at the Bank. His last banknote design projects during his tenure were the creation and launch of the 2017 commemorative banknote celebrating the 150th anniversary of Canada's confederation and the \$10 Viola Desmond vertical design banknote.

Richard has served as an IACA Board member since 2015.

Q: Why did you take on the position of Chairman of IACA?

A: After 28 interesting years with the Bank of Canada, the last 20 in the Currency Department, I wanted to stay involved, to stay in touch with the banknote industry. As Managing Director, Currency, at the Bank of Canada our goal had been to get the most of co-operative relationships with our suppliers in order to make better, more secure banknotes.

In 1998 I became Project Director for the new series designated 'The Canadian Journey Series'. It was clear that to be successful we needed to develop and rely on a number of our suppliers. We needed to maximise the development of our partnerships with these partners to achieve the best possible design and efficient production processes.

This focus has continued to evolve over time. We are seeing the fruits of that today with the International Bank Note Society and IACA choosing the Viola Desmond \$10 banknote as their 'Bank Note of the Year' for 2018 and IACA members choosing the 2017 commemorative note as their 'Best New Commemorative' banknote at the recent Currency Conference.

IACA exists to connect suppliers to central banks and I want to continue this work.

Q: What lies ahead for IACA? What are the priorities? What needs to be done?

A: Over the last 10 years, the cooperation between banknote suppliers and central banks has increased significantly. The agenda of conversations with suppliers used to consist of price and quality. That is not the case anymore as in-line systems have made quality management a little easier across production.

Now it is about the optimisation of supply and inventory. Partnership with suppliers is considered a best practice and is more normal and central banks have a wider choice of competent, competitive suppliers of substrate, security features and print than ever before. In a sense this is a battle 'won' and it is time to move on to address new priorities.

I see the distribution of banknotes and their accessibility as increasingly important. The ecology of the banknote cycle needs to include cash in transit (CIT), ATM and sensor companies. The future discussion, and more and more the current discussion, is going to be about the optimisation of the cash cycle. This will be a much broader conversation than in the past, involving central banks, stakeholders, suppliers and clients of the cash system. There will be a much greater focus on the cost optimisation and in this context IACA wants to be a bridge between central banks and the stakeholders.

Q: Can't conferences provide that bridge?

A: Conferences play an important role, especially around the creation of business networks and product marketing.

IACA sets the table for discussion between central banks and stakeholders through a range of activities. It sponsors discussions at conferences – for example, more than 30 IACA members participated in an informal conversation about central bank clean note policies at the recent Currency Conference in Dubai.

The industry wants to hear what the concerns of central banks are, and to have a forum where they can state theirs. The industry needs to understand the broad 'needs' of the central bank in order to create a commercially viable answer that can work for a wide range of banks since it is . This is an industry where it is hard to customise a product and compete financially.

The IACA cash cycle industry members are a vital part of the Association and they and central bank members benefit from the dialogue.

Q: Who sets the agenda for these discussions?

A: The topics grow out of discussions among IACA members and with our Board members. We recently launched a new initiative in response to members having asked IACA to find ways to enable them to interact with each other, both in the context of conferences and throughout the year.

As a result, on the IACA membership members' website there now are two discussion forums: one for central banks only, and another open to all IACA members. Members initiate discussions on topics of their choice; they also share recent reports and other materials related to cash topics to keep each other informed. These forums are working well, with a great deal of activity across a wide range of cash topics.

Similarly, IACA has always supported and provided a forum for fundamental research based on global payment studies. About 10 years ago, IACA was instrumental in bringing together central bank economists to learn from each other how to collect data on consumer cash habits and other payments methods. Since then, central banks in many countries have realized how crucial this data is in understanding the effectiveness of payments systems, and banks have begun to regularly collect data from consumers about payments. IACA makes available for all of its members as Country Cash Profile summaries of central bank payment, cash in circulation, and counterfeiting data in the form of easy to understand snapshots.

When we see members sharing information, participating in the online forums and in the conference seminars, we regard this as success and evidence that IACA is fulfilling its mission to use its resources, and its team, to bring people together.

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Paper Mill Back in Business After Major Upgrade

Antonio Olmos is the Director of the Fabrica Nacional de Moneda y Timbre (FNMT) Paper Mill in Burgos, Spain. FNMT – the state-owned printer and papermaker – has played a leading role in development, pilot production and industrial validation for the euro from ES1 to the current ES2 and the mill, established in 1952, has undergone an extensive upgrade to meet the technical, quality demands and environmental requirements of both the euro and other currencies. This was a major programme requiring detailed planning and execution, so we took the opportunity at a recent conference to find out more from Antonio.



Antonio Olmos.

Q: Would you briefly describe your background, education and how you came to join FNMT?

A: I joined FNMT at the age of 15, as a trainee. There were two aspects to my education. The special vocational training in FNMT covered metallurgy, electricity, printing pre-press, paper mill – everything to do with FNMT's operations, and in parallel I continued my studies at high school, and then at university.

Q: Was this in Burgos?

A: No! I was born in Madrid and both studied and joined FNMT there, where I worked for 14 years. The training in FNMT was for two years after which, depending on your ranking and evaluation in the school, you could select certain jobs in the organisation. I chose offset printing.

After 6-8 months I then had the opportunity to move to the pre-press department, where I was involved in the whole range of pre-press activities including making intaglio plates for banknotes and intaglio cylinders for tax stamps.

During this time I also completed my studies in mathematics and statistics at Madrid University plus an Industrial Managing MBA and, after eight years in pre press, I moved to HR. The manager responsible for HR and Security in the paper mill was due to retire and so I was asked to move to Burgos and take over from him. This was in 1993, when I was 29.

My main task was very clear – to prepare the paper mill to meet the requirements of the new euro currency – specifically in terms of organisation and security. I very much enjoyed this challenge.

Working on that, I was appointed some years later by the Banco de España (BdE) to participate in the ECB Security Working Group from July 1999 to February 2002 (just after the euro notes frontloading), developing with experts and colleagues the security rules for euro production and transportation and carrying out inspections to ensure the requirements and standards were being met by those involved. To take part in the production and establishment of a new and major currency was a unique experience.

I thought in some given moment that maybe my next career opportunity would be in Frankfurt, home to the ECB, but then in 2001 I was offered and accepted the position of Managing Director of the FNMT paper Mill in Burgos. So, I have been in the job for 18 years.

Q: Can you tell us about the recent changes in currency production in Spain?

A: FNMT is owned by the government but is not part of the central bank. The printing works were also owned by the government. But because of the new rules introduced by the ECB, BdE decided to print themselves the annual Spanish euro quota. And so that change of ownership was made and a new in-house company created – IMBISA. This is currently 80% the responsibility of the central bank and 20% FNMT.

Q: Will FNMT still receive the paper orders for the Spanish Euro quota?

A: Not directly! The printing works is issuing annual tenders for the paper and the FNMT paper mill is competing with other euro papermakers qualified by IMBISA to win that tender every year.

Q: So when will the new printing works be ready and in production?

A: I think that is something that only IMBISA know but I hope very soon. I don't know for certain as I am not directly involved.

Q: When did you decide to upgrade your paper mill? That's a major undertaking.

A: We determined, even before the IMBISA decision, that if we were going to compete in the market we had to upgrade the paper mill. The volume of paper from the Spanish printing works indent represented around 50% of our capacity, as much as 1,000 tonnes, and that would be at risk.

Also, we have supplied the international market since the 1980s and are qualified in as many as 32 countries. In order to compete in Europe and the world, we recognised we had to technically upgrade the paper mill.

Increasing the volume was never part of the plan– the objective was to be able to produce good paper and with good performance to meet the requirements and specifications of the market.

Q: What needed to be changed?

A: The paper mill needed a complete overhaul. We decided that in the first place we would tackle the front end– fibre and pulp preparation – then the finishing area and finally the paper machine itself because it was the most critical, complex and expensive.

Q: Was a short-former part of the upgrade?

A: No, we already had a short-former. So we approached the project on a step by step basis, determining what had to be done for each stage of the paper manufacturing process and the cost, and then, after approval, implementing the planned upgrade. This was followed by familiarisation and training of the staff involved until the upgraded section was running satisfactorily.

The most difficult aspect of the upgrade was the paper machine itself – from where the pulp goes in one end to where a roll of paper comes out of the other. This was also the most costly part. It is not easy to gain approval from the government for such a large investment programme for a public company. However, we succeeded with the help of the FNMT President, Jaime Sánchez, and the plan started in 2008 and finished with the biggest part when the investment for a major upgrading on paper machine was approved by the government in 2014.

Q: *What was the total investment?*

A: €60 million in total, of which €27 million was for the last stage, the paper machine upgrade, so €33 million covered all the other aspects of the programme.

Q: *And how is the mill performing today? Who are your main customers?*

A: The mill is performing very well and meeting all our expectations. We are producing euro paper for Spain but the quantity varies from year to year according to the requirements of the ECB. In 2013, around 90% of our production, of 2,000 tonnes, was for the euro series 2 paper, a peak time for replacing the series 1 banknotes. But now the amount is much less. It varies from year to year, but going forward we expect euro paper to take up only a small percentage of our 3,200 tonne capacity.

However, we are also successful in the international market – the upgraded machine allows us to meet all the technical specifications and quality requirements. In the first months after resuming activity in the plant we have produced banknote paper for euro and non euro printing works.

Q: *Are you running the paper machine 24/7?*

A: Yes we are running 332 days a year, 24/7 and our maximum capacity is around 3,200 tonnes. Our old machine had a capacity of around 2,000 tonnes a year so we have increased our capacity by over 50%. Obviously the type of paper and the average volume per order influences the annual output, but 3,200 tonnes is roughly our capacity.

Q: *How long would you say the paper mill has been running normally since the completion of the upgrade?*

A: We completed the programme pretty well on time – our technical team and all the suppliers did a good job – but of course we had a few delays through unforeseen issues. However, from contact with others who have gone through a similar experience, I can say we are very satisfied.

We spent around two months resolving final issues during production, but we have been running normally and meeting output and quality standards consistently since the middle of 2018.

Q: *Are you planning to increase your sales organisation to sell your additional capacity?*

A: We have not only to sell the additional capacity but during the upgrade we have been out of the market for more than one year for many regular customers, so we have to rebuild those relationships as well as sell the additional capacity. But now we can produce any quality of paper, whereas before we were restricted on what we could quote for.

We also have a strong commercial department based in Madrid with two overseas offices, one in Latin America and one in Asia, to service those important markets. So we are well positioned to succeed in the market.

The important thing is we are back to routine production – everyone has settled back into their daily routines – the pressure related to all the changes is behind us. We have recently produced paper for the €50 and for euro printing works, and are now moving to other productions.

Q: *How many employees do you have?*

A: We have around 180 employees, maybe a few less at the moment but we are recruiting. Burgos is an industrial province so there are technical training institutions – but although we can employ people with certain skills, paper technology and production is something we have to teach. We have various training programmes for new employees and for those changing jobs.

Our philosophy is to demand very high standards of work and a very clean mill and work environment – I do not believe we can have quality and security without a clean mill. And our objective is to ensure the best possible working conditions for our employees.

Q: *How can you differentiate the FNMT paper mill and/or its products from competitors? You were noted for having provided one of the solutions for enabling windows on the new euro series, for example.*

A: We are smaller than the other mills so we have to try and offer things the others don't or can't. It's not easy!

And solving the problem of incorporating windows into the euro notes was not easy either. We worked closely with Kurz, who supplied the foil, and with Pasaban to supply us with a new hot stamping machine with a laser cutting system. We tried many lasers until finally one worked. It was a very complicated challenge.

But eventually we got the right balance and the process worked. Pasaban supplied a very good machine with good tension control and automatic splicing, which is very important for us, as without that capability we would lose a lot of production and also increase waste, and these high security features are very expensive.

When we produce the windowed paper we use 40 km reels of foil and run continuously, only stopping when the reel is empty. This is very efficient. Having developed the machine with us, Pasaban has now sold another two machines to European paper mills.

Q: *Windows are a unique security feature. Why do you think other countries have not yet introduced the window technology into their banknotes?*

A: I really don't know why. Maybe it is still too soon, they want to be convinced of its security value and durability. We can supply the product, so it is available. And we have to be able to supply what the market demands, both now and in the future.

Q: *So coming back to what can FNMT offer that maybe others can't?*

A: The market for banknote paper is very difficult now – with high quality security features it can represent a significant percentage of the cost. So price is very important, and to be price competitive and profitable you have to be very efficient. This is what we believe we are good at – efficiency in production and we also control waste. The operator has to have the best training and tools to perform to these standards.

Q: *Is the upgrade and transformation now fully completed?*

A: We have a few things left to do, the main one being the removal of the old paper machine. Some three or four parts of this machine were used in the new installation but most of the old machine is waiting to be removed, which will create space and enable a better flow of product.

Q: *Have you developed any new products on the new machine?*

A: We have had to adjust the existing formulas to suit the new machine. Before we had a durable substrate but the new version is even better and performing very well, so we can now be competitive as durability is very important.

However, our main development programme involves nano technology – nano markers; we believe this is going to be the next substrate innovation. We cannot say more about this yet.

Q: *What are your plans for FNMT now and where do you see the company in, say, 10 years' time?*

A: Our prime objective now is to fully re-establish FNMT in the market as a valued and reliable supplier of quality banknote paper. We are able to meet all current specifications but we must re-supply long-standing customers to prove our capabilities and service. We must also establish new relationships and secure new customers.

We are not high a volume paper mill so we will mostly focus on medium and high denomination paper – high quality and/or durable paper is where we expect to succeed in the market. Our prime target markets are Asia and Latin America, but also some other printing works previously supplied by our paper mill, and new customers.

The Role and Ambitions

(Continued)

IACA also publishes central bank research papers as well as articles made available by members. We have the largest searchable library of presentations from a number of important industry conferences; this is often the only place where our members can see such presentations, particularly for conferences they did not attend.

All of these initiatives further IACA's objective of giving back to the currency community.

Q: *What are the areas of activity that are either coming up at the moment or which you expect to see discussed in the near future?*

A: There is always a need to provide resources to guide our members on the fundamental tasks such as forecasting banknote demand or options for how to out-source the authentication and fitness testing of banknotes. In addition, research and development of security features of all types will always be on the agenda.

Perhaps the 'new' topics coming to the fore at the moment are providing information on alternative payments and their impact, the cost options of different cash cycle models and scenarios, and accessibility.

The last of these will need to cover the options and latest thinking on the regulatory environment and framework to enable this. We are going to need to focus on this issue since it is essential to cash accessibility and acceptance in the future.

Q: *Will you seek to grow IACA?*

A: Growth in itself is not a goal. IACA has limited resources and it will use them to fulfil its mission, to be useful, to add value for both its central bank and stakeholder members. If it does that and it grows, then that would be very welcome.

Payments for Cash Professionals: a New Training Program for the Industry

Currency Research (CR) has launched a new training program that is tailored for cash industry professionals among the world's central bank currency departments, commercial banks, and cash management companies.

The program updates cash professionals on the latest developments in the complex domain of payments. An increasing number of people in the industry appreciate the importance of being aware of those developments since the speed and impact of disruptive technologies have pushed the cash industry into a significant amount of flux.

This educational seminar allows participants who have been focused on cash to gain insight into the current state of play on 'the other side' and will be presented by Jens Seidl, VP of Business Development and Consulting, at the host organisations' preferred location.

Offered at the 2018 Americas and 2019 Europe Cash Cycle Seminars (see page 13), as well as at the most recent Currency Conference in Dubai, the workshop has enjoyed strong favourable marks from attendees, with a 91% score on content and 92% on benefits gained.

Range of topics

CR has designed the training program to cover the full breadth of key developments around the globe, without going into the often overwhelming depth of the technical detail.

The seminar is structured into four main parts, followed by Q&A and a group discussion. An overview of major payment trends from key markets around the world is followed by a description of how 'conventional' payments work.

This lays the groundwork to understanding the extent to which challenger technologies are disrupting this industry.

Policy and regulatory developments, initiatives such as PSD2, financial inclusion, and other regulatory developments that may affect cash usage are covered during the third part.

Last but not least, and perhaps most anticipated, is the discussion of the latest payments innovations, delving into new technologies from mobile payments to crypto assets.

The seminar was developed by a team of researchers over several months, led by Chad Harper who has had more than a decade in senior positions with the Federal Reserve Bank in San Francisco and Richmond spanning both cash and payments.

Originally a two-hour session, the workshop has evolved into a day of content that will give participants a certification of completion and the power of knowledge to better qualify key decisions.

The swift pace of change in payments is forcing a new way for cash-intensive operations to look at forecasting. Strategic decisions such as whether to build a new cash centre, acquire a competitor's business, outsource or consolidate, etc. are made for the long-term future. However, simply projecting past statistics into the future is no longer good enough in a world where new technologies can change consumer behaviour at a pace that was inconceivable only 10 or 20 years ago.

The Payments for Cash Professionals training program will be a critical building block to providing a good foundation to cash departments looking to the future.

www.currencyresearch.com

Cash & Payment News

Highlights of the July issue of *Cash & Payment News*[™], the sister publication to *Currency News*[™], include:

- Federal Reserve Confirms Continuing Importance of Cash
 - UK and Singapore Financial Authorities Join Forces
 - Libra – Opportunity, Threat, or Simple Hype?
 - Big Tech in Payments: Opportunities and Risks
 - Designing for the Continued Support of Cash
 - Where is the Euro? ECB's Evidence on Foreign Use
 - What is Australia's New Payments Platform?
 - Cashless Initiatives Gaining Ground in Japan
 - The State of Payments, According to Square
 - Majority of Swiss High Denomination Banknotes are Hoarded
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